FINDING OF NO SIGNIFICANT IMPACT

Brownsville Public Utilities Board
FE Docket PP-226

On June 23, 2000, Brownsville Public Utilities Board (BPUB) filed an application with the Office of Fossil Energy (FE) of the Department of Energy (DOE) for a Presidential permit to construct, operate, maintain and connect an electric transmission line that would cross the U.S. border with Mexico. BPUB proposes to construct a double-circuit 138,000 volt (138-kV) transmission line from its Silas Ray Power Plant, located in Brownsville, Texas, and extending approximately 3,000 feet to the U.S.-Mexico border. At the border the transmission circuits would interconnect with similar facilities of the Comision Federal de Electricidad (CFE), the national electric utility of Mexico, and continue an additional 1.7 miles into Matamoros, Mexico. The facilities would be used to deliver up to 400 megawatts (MW) of electric power to Mexico's northern region.

Prior to issuing a Presidential permit, DOE must evaluate the environmental impacts of the proposed Federal action and reasonable alternatives pursuant to the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321, et. seq.). In compliance with NEPA, DOE has prepared an Environmental Assessment (EA; DOE/EA-1357) entitled Brownsville-Mexico 138-kV Transmission Line Project for the Federal action of authorizing construction of the proposed cross-border transmission line.

BPUB owns the existing 120-MW Silas Ray Power Plant and intends to market the electrical output of the plant to CFE. Initially, the double-circuit 138-kV transmission line would be energized at 69-kV and be capable of transmitting 120 MW of electrical power to Mexico using only one of the two circuits. After a minor expansion of the switchyard at the Silas Ray Power Plant, the proposed line would be capable of carrying 200 MW of power at a voltage of 69-kV using both circuits. Subsequent switchyard upgrades would allow the double-circuit line to be energized at 138-kV and be capable of transmitting 400 MW of power.

The 138-kV double-circuit line would be constructed on nine wooden, H-frame structures spaced 300-400 ft apart. The longest span between structures would be about 425 feet to cross the Rio Grande River into Mexico. The wooden pole structures are expected to be 70 feet above ground level. Conductor spacing would be about 15.5 feet. The power line will require a 50 foot wide right-of-way on BPUB property along an existing gravel road.

During preparation of the EA, DOE consulted with the Texas State Single Point of Contact. These consultations resulted in comments from the Texas Parks and Wildlife Commission. Comments regarding revisions and scope of the EA were incorporated into the text of the final EA.

In addition to the proposed action, DOE considered one routing alternative and the "no action alternative" and addressed the impacts of these alternatives in the EA. The EA is available upon request.

Conclusion

Based on the information contained in the environmental assessment, DOE has determined that issuance of a Presidential permit to BPUB for the proposed actions would not constitute a major Federal action significantly affecting the quality of the human environment and, therefore, does not require preparation of an environmental impact statement.

Environmental Consequences of the Proposed Action

The project study area is located in the Gulf Coastal Plain region of South Texas, within the floodplain of the Rio Grande River. The geologic strata are comprised of Pleistocene deposits that include alternating layers of sands, silts, and clays that dip gently toward the Gulf of Mexico. The approximate 3,000 foot transmission line will parallel existing gravel roads on BPUB property.

Air Quality Impacts

- There are no air quality impacts because no new powerplant construction or powerplant expansion is part of the proposed action. In addition, Silas Ray is currently an operating base-load natural gas fired powerplant. Currently the full electrical capability of the powerplant is being dispatched into the system of the State of Texas. Any power transmitted to Mexico would reduce the amount of electricity available to the State of Texas but would result in no net incremental electrical generation and consequently no incremental air emissions.

- Impacts due to construction of the nine support structures, conductor stringing, and switchyard upgrades will be minor, short in duration and local in nature (e.g., fugitive dust along roadways, exhaust emissions from construction vehicles and worker vehicles).

Cultural Resources Impacts

- No Indian Reservations or other lands owned by Native American groups are located in Cameron County, Texas.

- The Texas Historical Commission has reported that the proposed project would have no effects on National Register-listed properties, properties eligible for listing, or State Archeological Landmarks.

- Construction workers will be instructed about cultural resource sites in the event that a site is encountered when drilling holes for the transmission towers, during conductor stringing, or vegetation clearing along the right-of-way. If archeological sites or historical properties are encountered, design considerations, landscaping, or relocation activities will be employed.

Land Resources Impacts

- The preferred alternative route for the transmission line will require the construction of nine wooden pole structures spaced about 300-400 feet apart.

- The right-of-way for the preferred alternative route is on land owned by BPUB, along an existing gravel road that is the jurisdictional levee of the International Boundary and Water Commission. The 200-foot wide area for siting the 50 foot wide right-of-way is mostly thorny brush vegetation used as wildlife habitat.

- Land use within a 0.5 mile radius of the preferred alternative route is mixed urban/rural including commercial/industrial areas. The Silas Ray Power Plant, the BPUB Pumping Station and Filtration Plant and the Missouri Pacific Railroad are in commercial/industrial land use zones. Agricultural land (on privately-owned land) is located south of the east-west portion of the proposed right-of-way and residential use occurs to the east and south.

- The preferred alternative route does not cross any recreational areas. There are no schools, hospitals, recreational facilities, or public parks withing 0.5 miles of the proposed right-of-way.

Water Resources Impacts

- No streams will be crossed by the proposed route. Surface water within the project study area is not expected to be changed as a result of constructing the power line. The presence of the nine wooden pole structures will not affect storm water runoff, flow duration, or water quality.

- The technique used to string conductors between the wooden pole structures will involve "shooting" the pull strings from tower to tower to connect pull-tensioning cables in place. Tensioning cables will be used to pull phase wires (i.e., conductors) and static wires to the structures and allow stringing to occur across the Rio Grande River without having construction workers and equipment stationed in the river channel and riparian areas.

- The Rio Grande River that is traversed by a 450-foot segment of the proposed transmission line is not a part of the National Wild and Scenic Rivers System nor has it been cited in the National Rivers Inventory. However, the Rio Grande River was recently designated an "American Heritage River" under a non-regulated Federal program to support local restoration and environmental programs.

Ecological Impacts

- No federally listed endangered or threatened species occur withing the project study area.
- No federally-designated "critical habitat" for an endangered species exists in the project study area.

Floodplain and Wetlands Assessment/Statement of Findings

- Wetlands will be avoided by proper siting of wooden pole structure locations.
- About 93% of the line will cross the 100-year floodplain of the Rio Grande River. The wooden pole structures will be placed in 10 foot-deep holes that would properly support the lines during periods of inundation by the 100-year flood water level.
- DOE believes that the proposed action is in conformity with local and State floodplain protection standards. A copy of the draft environmental assessment was transmitted to the State of Texas for comment. The State had no comments to offer DOE.
- Since the woodpole structures are of minimal cross-sectional area in comparison to the broad area comprising the floodplain, no impact to the floodplain from the construction or operation of the proposed transmission line is expected. Furthermore, the U.S. International Boundary and Water Commission (IBWC) will assess the need for any other mitigation for the 93% of the transmission line within its jurisdiction and will incorporate any required mitigation in a separate license that must be issued by the IBWC.

Secondary Environmental Concerns

- Bird strikes could occur at the river crossing span. The use of anti-collision colored markers at the Rio Grande River will minimize strikes by waterfowl or other large wading birds known to strike conductors at crossings of wetlands and rivers.
- Operation of the transmission line will produce electric and magnetic fields. However, there are no known residents within the area potentially impacted by these fields and, therefore, they would produce no significant impacts on human health and safety.

- With regard to environmental justice, there are no residents living within the proposed project area. Therefore, the construction and operation of the proposed project would have no disproportionately high and adverse impacts on minority or low-income residents.

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